

#12/B (NE)  
Hawkins  
9/20/02

---

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**PATENT**

In re application of: Pelrine et al.

Attorney Docket No.: SRIIP028/4431-2

Application No.: 09,779,203

Examiner: Peter M. Medley

Filed: February 7, 2001

Group: 2834

Title: MONOLITHIC ELECTROACTIVE  
POLYMERS

Certificate of Hand Delivery

I hereby certify that this correspondence is being  
hand delivered to the United States Patent and  
Trademark Office on

Sep 18/02  
Signed: William J. Plut  
William J. Plut

**RESPONSE B**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This reply and the enclosed remarks are submitted in response to the final Office Action mailed on August 13, 2002. Applicants submit that the attached remarks fully address the issues raised in the Office Action.

**REMARKS**

In the Specification:

Please INSERT the following paragraph beginning on page 12, line 27:

--The quantity of pre-strain for a polymer may be based on the electroactive polymer and the desired performance of the polymer in an actuator or application. For some polymers of the present invention, pre-strain in one or more directions may range from -100 percent to 600 percent. By way of example, for a VHB acrylic elastomer having isotropic pre-strain, pre-strains of at least about 100 percent, and preferably between about 200-400 percent, may be used in each direction. In one embodiment, the polymer is pre-strained by a factor in the range of about 1.5 times to 50 times the original area. For an anisotropic acrylic pre-strained to enhance actuation in a compliant direction, pre-strains between about 400-500 percent may be used in the stiffened direction and pre-strains between about 20-200 percent may be used in the compliant